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Filed 6/9/2001
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REMARKS

Claims 1, 14, 18

Claim 1 has been rejected under 35 USC 103(a) as being unpatentable over Hayashi (JP 08-054980) in view of Vance (2001/0040550). Claim 14 has been rejected under 35 USC 103(a) as being unpatentable over Hayashi in view of Vance, and further in view of Zloof. Claim 18 has been rejected under 35 USC 102(b) as being anticipated by Uminaga (JP 01-136225). Claims 1, 14, and 18 are all independent claims, and Applicant respectfully traverses the rejections made thereto.

All of claims 1, 14, and 18 have been amended similarly. For descriptive convenience, however, Applicant specifically discusses claim 1 as representative of claims 1, 14, and 18. Claim 1 has been amended so that the housing substantially shaped to fit a finger of a user "end[s] in a grip," where "a shape of the housing and the grip *promote normal usage of a tip of the finger of the user while the finger is inserted into the housing, including touch-typing.*" Support for this amendment is found in the patent application as filed in at least two ways. First, claim 2, which has been cancelled, as originally filed recited "a grip situated at an end of the housing, the grip promoting normal usage of a tip of the finger of the user." Second, paragraph [0018] of the patent application as filed describes the following.

The fingertip grips 108 are situated at the ends of the housings 102 and 104. The grips 108 promote normal usage of the fingertips of the user's fingers inserted into the housings 102 and 104. For instance, the grips 108 allow the user to touch type and perform other activities that he or she normally would if his or her fingers were not inserted into the housing 102 and 104.

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First independent reason why claimed invention is patentable

Applicant asserts that the prior art of record does not teach, disclose or suggest a housing that is substantially shaped to fit a finger of a user "ending in a grip" and where "a shape of the housing and the grip *promote normal usage of a tip of the finger of the user while the finger is inserted into the housing, including touch-typing.*" For instance, in rejecting claim 1 over Hayashi in view of Vance, the Examiner cites figures 1-2 and paragraph [0017] of Hayashi in particular as showing and describing a grip. However, neither of these figures, nor paragraph [0017] of Hayashi discloses or shows a housing that ends in a "grip."

Applicant requests that the Examiner refer to FIG. 1 of the patent application as filed, for instance, which shows the grips 108 in accordance with an embodiment of the invention. Thus, the grip is a separate "thing" that is at the end of the housing. It is not simply the end or tip of the housing itself, if such an end or tip is not a "grip." There is nothing in Hayashi in view of Vance that corresponds to such a grip of the claimed invention. In figures 1 and 2 of Hayashi, for instance, there is a housing 2, but it does not end in a grip; this housing may be close-ended (i.e., having an end or a tip), but it does not end in a grip. Furthermore, paragraph [0017] of Hayashi merely states the following:

elasticity attachment portion 2 is formed with synthetic rubber or other elastic component, elasticity recess 21 which top a little has aperture in posterior approaching is formed. elasticity recess 21 in order tip of middle finger to be possible to keep with predetermined suppleness, is formed to Okuhiro a little. When middle finger 4 is inserted in this elasticity recess 21, as shown in Figure 2, in order to be able to arrange index finger 5 and ring finger 6 on opening 11, 12 for respective operation, configuration it is done.

There is no mention of a grip in this paragraph at all. More specifically, there is no mention of the housing that is substantially shaped to fit a finger, such as the housing 2, ending in such a grip. For this reason alone, the prior art of record does not render the claimed invention obvious.

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Second independent reason why claimed invention is patentable

Furthermore, Hayashi in view of Vance, and optionally further in view of Zloof, does not teach, disclose, or suggest “the shape of the housing and the grip *promoting normal usage of a tip of the finger of the user while the finger is inserted into the housing, including touch-typing*,” as to which the claimed invention is limited. For example, to understand this limitation of the claimed invention, consider the embodiment of the invention depicted in FIG. 5 of the patent application as filed. A user could insert his or her finger into one of the housings 102 and 104, and still use the tip of that finger to touch-type on a keyboard, as well to achieve as other normal usage of this fingertip. That is, the shape of the housing and the grip *promote* normal usage of the fingertip in the claimed invention. As stated in paragraph [0018] of the patent application as filed, “the grips 108 allow the user to touch type and perform other activities that he or she normally would if his or her fingers were not inserted into the housing 102 and 104.”

By comparison, Hayashi in view of Vance, and optionally further in view of Zloof, does not teach, disclose, or suggest a housing ending in a grip, where the shape of the housing and the grip *promote normal usage of a tip of the finger while the finger is inserted into the housing, including touch-typing*.” The Examiner has used Hayashi as the base reference in rejecting the claimed invention of claim 1, which is then modified in view of Vance and optionally further in view of Zloof. The housing of Hayashi, however, does not have a shape nor end in a grip that promotes normal usage of a fingertip inserted into the housing, including touch-typing. For instance, consider FIG. 2 of Hayashi. Paragraph [0017] of Hayashi says that you put your middle finger 4 into the housing 2, such that your index finger 5 rests on opening 11 and your ring (fourth) finger 6 rests on opening 12. In this configuration, there is no way you could use your fingertips to touch-type. The large shape of the portion 1 connected to the housing 2 prevents the middle fingertip from touch-typing, for instance, and because the index finger and the ring finger cover the openings 11 and 12, the index fingertip and the ring fingertip are likewise prevented from touch-typing. Thus, Hayashi as modified in view of any other reference, such as Vance

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and/or Zloof, does not have a housing ending in a grip that "promote normal usage of a tip of the finger while the finger is inserted into the housing, including touch-typing." Quite simply, you cannot normally use your fingertip, such as for touch-typing purposes, when it is inserted into the housing 2 of Hayashi in view of one or more other references.

Furthermore, Applicant notes that one of ordinary skill within the art could not modify Hayashi in view of any other reference in order to modify the teachings of Hayashi to disclose a housing and a grip that promote normal usage of a tip of the finger while the finger is inserted into the housing, including touch-typing, as to which the claimed invention is limited. The portion 1 of Hayashi, having openings 11 and 12 that are coverable by fingers 5 and 6, form an important part of the pointing device taught by Hayashi. For example, differently blocking openings 11 and 12 is crucial to how Hayashi works. Consider paragraph [0027] of Hayashi:

When finger is put in opening 11 for operation, outside light which is introduced into light guide 23 being done, shielding photoreceptor PD stops detecting light, this as for computer body recognizes as decision input.

In addition, when finger is put in opening 12 for operation, the outside light which is introduced into light guide 26 being done, shielding another photoreceptor PD stops detecting light, this as for computer body recognizes as escape input.

Thus, the user places his or her finger over the opening 11 to denote "decision input" in the pointing device of Hayashi, whereas he or she places his or her finger over the opening 12 to denote "escape input." Without the portion 1 having the openings 11 and 12, Hayashi would not be able to function in these ways as intended. As stated in the MPEP, section 2143.01, "the proposed modification cannot render the prior art unsatisfactory for its intended purpose," and "the proposed modification cannot change the principle of operation of a reference." Thus, the portion 1 having the openings 11 and 12 is needed in Hayashi, and prevents Hayashi from being modified to "promote normal usage of a tip of the finger while the finger is inserted into the housing, including touch-typing" as to which the claimed invention is limited.

For these reasons, then, the claimed invention of claims 1, 14, and 18 is not rendered unpatentable over Hayashi in view of any other reference or references, such as Vance and/or

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Zloof. Applicant parenthetically acknowledges that claim 18 was rejected under 35 USC 102(b) as to a completely different reference, Uminaga. However, Applicant has modified claim 18 so that it recites the finger glove “substantially shaped to fit a finger of the user and ending in a grip,” where “a shape of the housing and the grip promote normal usage of a tip of the finger of the user while the finger is inserted into the finger glove, including touch-typing.” In this way, Applicant believes that it is clear that Uminaga is no longer a relevant reference in rejecting claim 18. For instance, Uminaga clearly shows a glove 1 that is not “substantially shaped to fit a *finger*” of a user, but rather is substantially shaped to fit the *hand* of a user. Furthermore, the glove of Uminaga does not end in a grip, and indeed is not even close-fingered at all. Therefore, Applicant above has concentrated on why the claimed invention is patentable over Hayashi in combination with one or more other references, instead of over Uminaga, either alone or in combination with one or more other references.

Claim 4

Claim 4 is a dependent claim that depends from claim 1. Claim 4 has been rejected over Hayashi in view of Vance. Claim 4 is patentable at least because it depends from a patentable base claim, claim 1. However, Applicant contends that claim 4 is independently patentable, irrespective of the patentability of claim 1.

Claim 4 limits to the finger of the user that is to be inserted into the housing of claim 1 as the “index finger” of the user. That is, claim 4 is limited to “the finger of the user *as to which the housing is specifically receptive* is an index finger of the user.” This means simply that the housing is adapted to be used for insertion of a user’s index finger thereinto.

Hayashi in view of Vance does not teach this limitation of the claimed invention. The Examiner particularly relies upon Hayashi in disclosing this limitation, stating that Hayashi discloses the forefinger 5 in paragraph [0017] and FIGs. 1-2 thereof. However, this is incorrect with an even cursory review of Hayashi. In FIG. 2, for instance, the *middle finger 4* of the user is

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inserted into the housing 2. The *index finger 5* rests on the opening 11, whereas the *ring/fourth finger 6* rests on the opening 12. Indeed, paragraph [0017] of Hayashi states that “*when middle finger 4 is inserted in this elasticity recess 21, as shown in Figure 2, in order to be able to arrange index finger 5 and ring finger 6 on opening 11, 12.*” The index finger of a user is not inserted into the housing of Hayashi, but rather rests on the opening 11. Therefore, Hayashi in view of any other reference cannot render the invention of claim 4 obvious.

It is noted that Hayashi is further not modifiable to render the invention of claim 4 obvious. That is, if you modify Hayashi so that the housing 2 is receptive to the index finger 5, then the device does not work – there would not be a finger that could rest on the opening 11. You could put your thumb on the opening 11 if your index finger were in the housing 2, but this is awkward at best, rendering the device uncomfortable to use, and thus is a reason that teaches away from such modification. Therefore, Hayashi is not modifiable in view of any other reference to teach, disclose, or suggest the invention of claim 4.

Claims 3, 5-13, 15-17, 19-20

Claims 3, 5-13, 15-17, and 19-20 are dependent claims depending from the independent claims 1, 14, and 18. All of these claims have been rejected. However, Applicant submits that they are patentable at least because they depend from allowable independent claims, for the same reasons as have been described above in relation to the independent claims.


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Conclusion

Applicants have made a diligent effort to place the pending claims in condition for allowance, and request that they so be allowed. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Mike Dryja, Applicants' Attorney, at 425-427-5094, so that such issues may be resolved as expeditiously as possible. For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,



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